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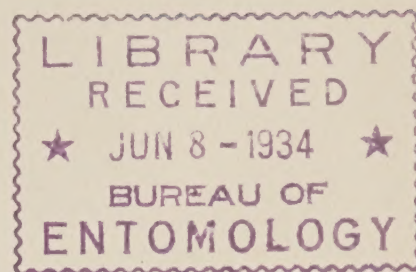
BUREAU OF ENTOMOLOGY

COOPERATING WITH

NEW JERSEY DEPARTMENT OF AGRICULTURE

JAPANESE BEETLE PROJECT

MOORESTOWN, N. J.



SPRAYING GARDEN ORNAMENTALS
for
PROTECTION FROM JAPANESE BEETLE ATTACK

SEASON OF ATTACK: The Japanese beetle attacks the leaves and blossoms of a number of garden ornamentals from about July 4 to about August 20, the actual dates depending upon the weather. This is the period during which the beetles normally occur in greatest numbers. Ornamentals most likely to be attacked are: Aster, Canna, China Aster, Evening-primrose, Hibiscus, Hollyhock, Rose, Calendula, Castor Bean, Dahlia, Geranium, Morning-glory, Scarlet Sage, Zinnia.

WHAT TO SPRAY WITH: The material used is lead oleate-coated lead arsenate. This can be obtained from most dealers in garden supplies. If the coated lead arsenate cannot be obtained, ordinary lead arsenate (powder, or paste containing 50% water) will do, but will not stick on the leaves as long.

FORMULA: To one gallon of water use 3 heaping tablespoonfuls of lead arsenate powder or paste or 2 heaping tablespoonfuls of the coated lead arsenate. For larger quantities to 50 gallons of water, use four pounds of the coated arsenate, 3 pounds of the powder or 6 pounds of the paste.

TIME TO SPRAY: Spray about July 1, before the beetles appear in numbers; repeat in 3 to 4 weeks. The first spray must be applied before the plants are attacked; otherwise, later sprays are of little value.

SPRAY THOROUGHLY: All the foliage should be covered. Use a good bucket pump sprayer if available. Throw a fine mist spray over the top and sides of the plants, coating both sides of the leaves. Unsprayed leaves or portions offer good feeding spots for the beetles.

JAPANESE BEETLE TRAPS: Traps made after the model developed at the Japanese Beetle Laboratory have been effective in catching large numbers of beetles. However, the traps attract more beetles than they catch. For that reason traps are not recommended for the protection of nearby plants.

OTHER SPRAYS: Contact sprays made of pyrethrum soap have been developed, and have been found effective for killing beetles. These sprays are not recommended for protecting plants. It is true that they kill beetles, but they kill only those that are on the plants at the time of spraying.

BLOSSOM PROTECTION: It is very difficult to protect the blossoms themselves. As they open they furnish new food for the beetles. The sprays recommended may stain them, but this would generally be preferred to their destruction by the beetles.

For further information, address

Japanese Beetle Laboratory,
Moorestown, New Jersey.

